

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1.(original) Product of the biochip type, comprising a flat solid support having a surface covered with a metal capable of coordination bonding with a phosphate group, at least one biopolymer carrying a free phosphate group $OP(O)(OH)_2$ being immobilized on said surface by ionocovalent bonding between the free phosphate group of the polymer and the metal.

2.(original) Product according to claim 1, wherein the biopolymer is a nucleic acid phosphorylated in the 5' position.

3.(original) Product according to claim 1, wherein the biopolymer is a nucleic acid phosphorylated in the 3' position.

4.(currently amended) Product according to ~~either claim 2 or claim 3~~ claim 2, characterized in that the nucleic acid has a polyguanine (polyG) spacer group between the body of the nucleic acid and the phosphate group.

5.(original) Product according to claim 1, wherein the biopolymer is a phosphorylated protein.

6.(original) Product according to claim 1, wherein the biopolymer is a phosphorylated oligo- or poly-saccharide.

7.(currently amended) Product according to ~~any one of claims 1 to 6~~ claim 1, wherein the metal is bound to the surface of the support by way of a spacer molecule.

8.(original) Product according to claim 7, wherein the spacer molecule comprises a fatty acid chain carrying a phosphonate group to which the metal binds by ionocovalent bonding.

9.(currently amended) Product according to ~~any one of claims 1 to 8~~ claim 1, wherein the metal is zirconium.

10.(original) Product according to claim 8, wherein the spacer molecule is octadecylphosphonic acid and the metal is zirconium.

11.(currently amended) Product according to ~~any one of claims 1 to 10~~ claim 1, wherein the support is glass.

12.(original) Product according to claim 1, comprising a sheet of glass having a surface covered with a monolayer of zirconium octadecylphosphonate, at least one nucleic acid carrying a phosphate group in the 5' position being immobilized on said surface by ionocovalent bonding between the phosphate group of the nucleic acid and the zirconium.

13.(currently amended) Method for making a product of the biochip type, as defined in ~~any one of claims 1 to 12~~ claim 1, comprising the immobilization of at least one biopolymer carrying a free phosphate group on a solid support having a surface covered with a metal capable of coordination bonding with a phosphate group, the biopolymer being immobilized on said surface by ionocovalent bonding between the free phosphate group of the polymer and the metal.

14.(original) Method according to claim 13, also comprising a step of obtaining the biopolymer carrying a phosphate group.

15.(original) Method according to claim 14, wherein the polymer is a nucleic acid phosphorylated enzymatically in the 5' position.

16.(currently amended) Kit for the preparation of a product of the biochip type as defined in ~~any one of claims 1 to 12~~ claim 1, comprising the following elements:

- a solid support having a surface covered with a metal capable of coordination bonding with a phosphate group;
- at least one biopolymer carrying a phosphate group;
- optionally reagents.

17.(currently amended) Use of a product of the biochip type as defined in ~~any one of claims 1 to 12~~ claim 1, for the purpose of screening compounds capable of binding to the immobilized biopolymer.

18.(currently amended) Use of a product of the biochip type as defined in ~~any one of claims 1 to 12~~ claim 1, as an in vitro diagnostic tool.

19.(new) Product according to claim 3, characterized in that the nucleic acid has a polyguanine (polyG) spacer group between the body of the nucleic acid and the phosphate group.